UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 21 2014

REPLY TO THE ATTENTION OF

Ms. Kristin Hart
Chief
Permits and Stationary Source Modeling Section
Bureau of Air Management
Wisconsin Department of Natural Resources
PO Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Hart:

The U.S. Environmental Protection Agency has reviewed the Wisconsin Department of Natural Resources' draft Title V renewal permit for USG Interiors (USG) in Walworth Wisconsin, permit number 265006830-P10. In order to ensure that the permit meets Federal Clean Air Act requirements, that the permit will provide necessary information so that the basis for the permit decision is transparent and readily accessible to the public, and that the permit record provides adequate support for the decision, EPA has the following comments:

1. On page 16 of the Preliminary Determination (PD), it states that, "...the permittee elected to limit federal HAPs to less than 10 tons per year for any single HAP and 25 tons per year for all HAP combined. ...The permittee is required to use the thermal oxidizer and baghouses to control HAP emissions." (By limiting the Hazardous Air Pollutants (HAP) emissions USG will remain a minor source of Federal HAPs so that it is not subject to the maximum achievable control technology requirements for Mineral Wool Production.) On page 10 of the PD, regarding the control device for the mineral wool cupola, it states that "The control efficiency is assumed to be 99% for all HAPs." Please explain the basis for this assumption. Is operation at 99% efficiency necessary and being relied upon in order the HAPs to remain under the 10 tpy and 25 tpy limits? If so, why isn't there requirement in the permit for the 99% efficiency? Is there verification that maintaining the pressure drop across the baghouse between 0.5 and 10 inches of water will ensure a control efficiency of 99%?

2. The permit should explain why maintaining the pressure drop across the baghouse for the mineral wool cupula between 0.5 and 10 inches of water will ensure that the 1.50 lb/hr of Particulate Matter (PM) limit. The PD for the original TV permit states that the 1.50 lb/hr limit was "based on the results of a 2002 cupola stack test". (p. 19) If this limit still relies on the 2002 stack test, the permit should require that the same operating conditions exist that existed during the stack test. Note that if a particular control efficiency is being relied upon or assumed to meet the limit, then that control efficiency should be included in the permit. EPA's Memorandum, "Guidance on Limiting Potential to Emit in New Source Permitting" from June 13, 1989 states, "When permits require add-on controls operated at a specified

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efficiency level, permit writers should include, so that the operating efficiency condition is enforceable as a practical matter, those operating parameters and assumptions which the permitting agency depended upon to determine that the control equipment would have a given efficiency." (p. 7)

3. The compliance demonstration for the 20% opacity limit for the cupula (which fires coke in addition to natural gas) is to use the baghouse/fabric filter dust collector, but there are no requirements to operate the control equipment at any given efficiency, monitor the pressure drop, inspect the control device, or ensure it is operating properly. Thus, it's not clear how the 20% opacity limit is will be met, or whether a certain control efficiency is being assumed or being relied upon. Please include additional compliance measures or explain why they are not necessary in this situation.

4. The compliance demonstration in the permit for the Particulate Matter (PM) limit for the mineral wool blow chamber is to use the three dry filters and "monitor the pressure drop across the dry filters... The pressure drop across the baghouse/fabric filter shall be maintained between 0.5 and 10 inches of water..." First, the permit is unclear that a baghouse exists for this unit. Please verify. Second, the permit is not clear whether the pressure drop is to be measured across each of the three dry filters, or as a total across all three filters. Please clarify. In addition, the PD to the original TV permit states that the PM Potential To Emit (PTE) is based on fabric filter stack tests, and that the PM PTE is shown to be 13.71 lb/hr which meets the limit of 14.02 lb/hr. However, since the original Title V permit was issued, the dry filter configuration has changed. Given the change in configuration, a new test should be required or the permit record should explain why a new test is not warranted. Note that if a particular control efficiency is being relied upon or assumed to meet the limit, then that control efficiency and operating conditions during the testing should be included in the permit.

5. The PD for the original Title V permit states that the boilers and process heaters were subject to 40 CFR 63 Subpart DDDDD which was vacated in June 2007. Note that on January 31, 2013 the final rule for 40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (Subpart DDDDD) was published, and became effective as of April 1, 2013. In addition, the Area Source Boiler final rule was published on February 1, 2013 (40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers.) Please address the applicability of these regulations in the renewal permit.

6. On page 8 of the draft permit there is a note in the Limitations column of the permit, "Note: This condition supersedes the...." This note appears to be carried over from when construction permit 07-MCS-323 changed conditions in a prior construction permit 86-SJK-016. This Title V permit renewal is not changing or superseding any limitations from the 1986 construction permit or any other prior construction permit (nor can it) and thus this note should be removed. In additional this note is not an applicable permit limitation or condition and should be removed. Same comment for the similar "Notes" on pages 22, 25 and 28 of the permit.

7. The note in the Limitations column on page 10 of the draft permit, "Note: The heat input rating of the cupula is 33.21 MMBtu/hr..." should also be removed. This note is not an applicable permit limitation or condition and there is no legal origin and authority for this note. Furthermore, because compliance with the federally approved version of NR 417.07 is assessed by measuring the entire stack emissions of sulfur dioxide, without discarding any non-fuel based portions of the emissions, the substance of the footnote is inconsistent with the applicable requirement in the state implementation plan.

8. Condition ZZZ.1.a. of the permit limits any Federal HAP to no more than 1,666 lb/mo and the total of all Federal HAPs to no more than 4,166 lb/mo. This limit applies to the total facility, however, a blanket emission limit over the entire facility is not practically enforceable. An emission limit alone, "would limit potential to emit only when it reflects the absolute maximum that the source could emit without controls or other operational restrictions." See page 7 of EPA's 1989 Memorandum, "Guidance on Limiting Potential to Emit in New Source Permitting". Further, the permit "must contain a production or operational limitation in addition to the emission limitation in cases where the emission limitation does not reflect the maximum emissions of the source operating at full design capacity without pollution control equipment. Restrictions on production or operation that will limit potential to emit include limitations on quantities of raw materials consumed, fuel combusted, hours of operation, or conditions which specify that the source must install and maintain controls that reduce emissions to a specified emission rate or to a specified efficiency level." (p. 5 of the 1989 Memorandum) It is unclear how the HAP limits will be achieved. The compliance demonstration in the permit requires operating the control devices (baghouse and afterburner) on the mineral wool cupula, and also determining the HAPs "present or emitted" for "each material used or applied". This compliance demonstration method and associated monitoring, record keeping and reporting is not enforceable as a practical manner because the method for determining and measuring HAPs from all of the units at the facility will vary. (For example, the method used to determine emissions from the curing oven may be different from the method used to determine emissions from the mineral wool blow chamber, etc.) The permit requires the permittee to "determine, either analytically or through the use of published literature (e.g. MSDS or AP-42)... the identity of all Federal HAPs present or emitted..." which may be practical for the coating operations, but it is unclear what methods will be used to determine emissions from all of the other units at the facility. The permit should clarify how the facility will determine the HAPs "present or emitted" for "each material used or applied" for all units.

9. Did the Natural Gas Fired Emergency Water Pump that was installed in November 2012 receive either a permit, or permit exemption? It should be listed for this unit in the Historical Summary in the preamble to the permit, or the PD should explain why one was not necessary.

10. Footnote #17 on page 31 of the permit indicates that the emergency generators are not being operated for more than 15 hours per year and thus certain reporting requirements in Part 60 are not applicable. Assuming that this footnote is referring to the Emergency Water Pump, there is nothing in the permit to prohibit the unit from being operated for more than 15 hours

per year. In fact, condition J.1.b.(3)(b) on page 32 of the permit states that the unit may be operated for a maximum of 100 hours per calendar year. Please explain and include in the permit a limit on the hours of operation if one is necessary.

We appreciate the opportunity to provide comments on this permit and look forward to working with you to address them. If you have any questions, please feel free to contact Susan Kraj, of my staff, at (312) 353-2654.

Sincerely,

Genevieve Damico
Chief
Air Permits Section